

Amendments to the Claims:

The following list of claims will replace all prior versions and listings of claims in the application.

1-10. (Canceled)

11. (Currently Amended) A system for transmitting DSL and POTS signals over a local loop, the system comprising:

a first load coil for disposal along the local loop to condition the POTS signals, the first load coil including a coupled inductor and multiple capacitive elements for increasing an effective capacitance of the coupled inductor, wherein the multiple capacitive elements have capacitance values relative to an interwinding capacitance value of the coupled inductor to improve transmission of DSL signals across the first load coil;

a first DSL signal repeater for disposal along the local loop in series with the first load coil to amplify the DSL signals, the first DSL signal repeater including a second load coil for conditioning POTS signals passing there through, wherein the coupled inductor has first and second windings wrapped about an inductor core, each winding having an input and an output, the multiple capacitive elements further comprising

a first capacitive element being disposed between the input of the first winding and the input of the second winding; and

a second capacitive element disposed between the output of the first winding and the output of the second winding.

12-13. (Canceled)

14. (Previously Presented) The system for transmitting DSL and POTS signals according to claim 11, wherein each capacitive element has a capacitance value between 10 nF – 82 nF.

15. (Previously Presented) The system for transmitting DSL and POTS signals according to claim 11, wherein each capacitive element has a capacitance value between 5 nF – 50 nF.

16-17. (Canceled)

18. (Previously Presented) A method for improving simultaneous transmission of POTS-band signals and DSL signals across a local loop, comprising:

inductively coupling a first segment of the local loop to a second segment of the local loop via a coupled inductor to condition the POTS-band signals traversing the local loop;

capacitively coupling the first segment of the local loop to the second segment of the local loop via capacitive elements to pass the DSL signals traversing the local loop with low attenuation, the capacitive elements having capacitance values that are selected based upon a capacitance value of the coupled inductor; and

amplifying the DSL signals between the first segment of the local loop and a third segment of the local loop but after the coupled inductor and the capacitive elements.

19. (Original) The method of claim 18, wherein the step of inductively coupling includes coupling a first wire of the first segment of the local loop to a first wire of the second segment of the local loop via a first inductor winding wrapped about an inductor core, and coupling a second wire of the first segment of the local loop to a second wire of the second segment of the local loop via a second inductor winding wrapped about the inductor core.

20. (Previously Presented) The method of claim 19, wherein the step of capacitively coupling includes coupling a first wire of the first segment of the local loop to a second wire of the second segment of the local loop via a first capacitive element, and coupling a second wire of the first segment of the local loop to a first wire of the second segment of the local loop via a second capacitive element.

21. (Original) The method of claim 18, wherein the step of capacitively coupling includes coupling a first wire of the first segment of the local loop to a first wire of the second segment of the local loop via a first capacitive element, and coupling a second wire of the first segment of the local loop to a second wire of the second segment of the local loop via a second capacitive element.

22. (Previously Presented) A system to improve simultaneous transmission of POTS-band signals and DSL signals across a local loop, the system comprising:

a first local loop, the first local loop including

a first wire, and

a second wire;

a second local loop, the second local loop including

a third wire, and

a fourth wire;

a coupled inductor configured to condition the POTS-band signals traversing the first

and second local loops, the coupled inductor including

an inductor core,

a first inductor winding wrapped about the inductor core and coupling the first
wire to the third wire, and

a second inductor winding wrapped about the inductor core and coupling the
second wire to the fourth wire; and

capacitive elements configured to pass the DSL signals traversing the first and

second local loops, the capacitive elements including

a first capacitor coupling the first wire to the fourth wire, and

a second capacitor coupling the second wire to the third wire, wherein the

first capacitor and the second capacitor have capacitance values

that are at least four times an inter-winding capacitance value

between the first inductor winding and the second inductor winding.

23. (Previously Presented) A system to improve simultaneous transmission of POTS-band signals and DSL signals across a local loop, the system comprising:

a first local loop, the first local loop including

a first wire, and

a second wire;

a second local loop, the second local loop including

a third wire, and

a fourth wire;

a coupled inductor configured to condition the POTS-band signals traversing the first and second local loops, the coupled inductor including

an inductor core,

a first inductor winding wrapped about the inductor core and coupling the first wire to the third wire, and

a second inductor winding wrapped about the inductor core and coupling the second wire to the fourth wire; and

capacitive elements configured to pass the DSL signals traversing the first and second local loops, the capacitive elements including

a first capacitor coupling the first wire to the fourth wire, and

a second capacitor coupling the second wire to the third wire, wherein the first capacitive element to electrically connects in parallel with the inter-winding capacitance between the first inductor winding and the second inductor winding.

24. (Previously Presented) The load coil of claim 1, wherein the first and second capacitive elements each have a capacitance value at least five times the inter-winding capacitance value between the first winding and the second winding.

25. (Canceled)

26. (Previously Presented) A method, comprising:

passing a first type of signal having a frequency greater than twenty kilohertz of across a coupled load coil that has a first winding, a second winding and a capacitive element disposed in parallel with an inter-winding capacitance between the first winding and the second winding; and

passing a second type of signal in a voice frequency range across the load coil at the same time as the first type of signal pass through the load coil regardless of whether the second type of signal was transmitted in the same direction in relation to the load coil as the first signal, wherein the capacitive element has a capacitance value that is at least four times the inter-winding capacitance value between the first winding and the second winding to permit passage of the first type of signal across the load coil at the same time as the second type of signal.

27. (Previously Presented) An apparatus, comprising:

means for passing a first type of signal having a frequency greater than twenty kilohertz of across a coupled load coil that has a first winding, a second winding and a

capacitive element disposed in parallel with an inter-winding capacitance between the first winding and the second winding; and

means for passing a second type of signal in a voice frequency range across the load coil at the same time as the first type of signal pass through the load coil regardless of whether the second type of signal was transmitted in the same direction in relation to the load coil as the first signal, wherein the capacitive element has a capacitance value that is at least four times the inter-winding capacitance value between the first winding and the second winding to permit passage of the first type of signal across the load coil at the same time as the second type of signal.

28-29. (Canceled)